

State Assumption of the Section 404 Program

Review by the Significant Degradation,
Alternatives Analysis, and Avoidance and
Minimization Technical Working Group

*This white paper is solely a product of the volunteer
technical work group members and should not be
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Executive Summary

This white paper represents the Significant Degradation, Alternatives Analysis, and Avoidance and Minimization Technical Working Group's (TWG) evaluation of the current Clean Water Act Section 404 program administered by the U.S. Army Corps of Engineers (Corps). The purpose of the white paper is to identify and summarize current regulations and Corps practices that are applicable to the TWG's core subject matter, identify data gaps of the current program, and provide technical information to guide the Arizona Department of Environmental Quality Executive Committee in developing a state assumed Section 404 program.

The subject matter for this TWG is primarily described in the Corps *Section 404(b)(1) Guidelines for Disposal Sites for Dredged and Fill Material* (the "Guidelines"). These Guidelines provide the regulated community a compliance roadmap for projects requiring a Standard Permit (i.e., "Individual Permit"). State assumption of the Corps 404 program, which incorporates by reference the Guidelines, is considered a reasonable approach by this TWG. Adoption of the Guidelines would ensure that the evaluation of potential adverse impacts specific to the discharge of dredge and fill of material to the aquatic environment in Arizona would meet the goals of the state assumption regulations. Furthermore, requirements of the Guidelines to determine significant degradation; analyze a practicable range of alternatives to the proposed discharge of dredged or fill material; and implement accepted actions to avoid and minimize discharge impacts to characteristics and values of resources of the aquatic environment would continue to provide a level of environmental protection to the aquatic environment that is as stringent as the current program.

With state assumption of the Corps' 404 program, consideration should be given, among other recommendations in this white paper, to clarifying the limited scope of analysis under the Guidelines, recognizing the inherent flexibility in the Guidelines appropriate to the type of discharge and aquatic ecosystem being evaluated, amending ADEQ's current antidegradation regulations to address implementation of antidegradation once Arizona's assumes the Corps' 404 program, and developing technical information to assist the regulated community with implementing avoidance and minimization actions. Adoption of the Guidelines, along with the other recommendations provide in this white paper would provide the opportunity for an efficient ADEQ permit review process and state assumed program that complies with the implementing regulations. However, a state assumed program is not required to carry forward federal obligations under the National Environmental Policy Act (NEPA) currently required by the Corps' 404 program. While aspects of NEPA, including CFR Appendix B Part 325 "NEPA Implementation Procedures for the Regulatory Program" and associated scope of analysis

considerations, were discussed in the context of the Guidelines, NEPA obligations of the Corps' 404 program were not reviewed in detail. Because a state assumed program is not obligated to comply with NEPA, this separation is viewed as a concern by some in this TWG.

Introduction

The Arizona Department of Environmental Quality (ADEQ) Water Division is considering the assumption of Clean Water Act (CWA) Section 404 permitting in Arizona. With a state assumption of the US Army Corps of Engineers' (Corps) 404 program, ADEQ would assume the jurisdictional authority to approve, deny, and condition CWA Section 404 permits for the discharge of dredge and fill of material into most waters of the US within Arizona. This authority would exclude waters of the United States on tribal lands and those which would continue to be regulated the Corps under Section 404(g).

Currently, the Arizona Regulatory Branch of the Corps, with oversight from the US Environmental Protection Agency (EPA), administers the Section 404 permitting program. According to 40 CFR Part 233 "404 State Program Regulations", States may pursue assumption of the Corps' 404 program with approval from the EPA. A request for approval includes a detailed program description documenting how a state assumed program will, at all time, be conducted in accordance with the requirements of the CWA. An important aspect of any state assumed program is that, while States may impose more stringent requirements than the Corps' 404 program, States may not impose any less stringent requirements for any purpose. In April of 2018, Governor Ducey signed Senate Bill 1493 into law granting the state the authority to develop rules to assume the Corps' 404 program consistent with the CWA.

To assist ADEQ with the state assumption process, technical working groups (TWG) were established to provide expertise related to aspects of the Corps' 404 program and provide recommendations to ADEQ and the Executive Committee for consideration when developing a state assumption program description.

Per a charter established by ADEQ and agreed upon by members of this TWG, the Significant Degradation, Alternatives Analysis, and Avoidance and Minimization TWG, reviewed the Corps' 404 program specific to 1) significant degradation, 2) the alternatives analysis process, and 3) and avoidance and minimization requirements associated with Section 404(b)(1) of the CWA.

Section 404(b)(1) of the CWA required EPA, in conjunction with the Corps, to develop guidelines for evaluation of Section 404 dredged or fill material disposal sites (i.e., waters of the United States). In 1980, the EPA adopted the current version of its regulations known as the *404(b)(1) Guidelines for Specification of Disposal Sites for Dredged and Fill Material* (Guidelines). The Guidelines contain several, important restrictions on discharges of dredged or fill material into waters of the United States. Notably, the Guidelines state that "except as provided under CWA section 404(b)(2), no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States.". Additionally, the Guidelines are the basis for the development of an alternative analysis

and identifying the least environmentally damaging practical alternative and notes that “except as provided under Section 404(b)(2), no discharge shall be allowed if there is a practicable alternative that would have less adverse impacts.”. The Guidelines further provide that “no discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem.”

This white paper represents the TWG’s assessment of the current Corps 404 program with respect to its mandate and the requirements of Section 404(b)(1) of the CWA. As part of this TWG’s mandate, the current Corps’ 404 program was reviewed to assess minimal requirements needed for a state assumed program and data gaps between the Corps’ 404 program and existing state guidance for waters of the United States were identified. Implementation options associated with TWG recommendations anticipated to be necessary for developing a compliant state assumed program are provided for ADEQ’s Executive Committee’s consideration when developing a state assumption request to the EPA.

Significant Degradation

Introduction

Activities permitted under Section 404 of the Clean Water Act (CWA) must not result in violations of other environmental laws and must not result in significant degradation (40 CFR 230.10(b) and (c)). The activity must not result in significant degradation that would result in adverse impacts on the aquatic environment/aquatic ecosystem.¹ According to 40 CFR 230.10(c) and 230.11, findings of significant degradation rely on factual determinations, evaluations, and tests required by Subparts B and G, and after consideration of Subparts C through F and H of the *404(b)(1) Guidelines for Specification of Disposal Sites for Dredge and Fill Material* (hereafter referred to as Guidelines).

Current State of Regulations and Program

Section 404(b)(1) of the CWA required EPA, in conjunction with the Corps, to develop guidelines for evaluation of Section 404 dredged or fill material disposal sites, and to base such guidelines “upon criteria comparable to the criteria applicable to the territorial seas, the contiguous zone, and the ocean under section [403(c) of the CWA].”² Section 403(c) required EPA to develop guidelines for determining the degradation of the waters of the territorial seas, the contiguous zone, and the oceans using the following criteria:

- (A) the effect of disposal of pollutants on human health or welfare, including but not limited to plankton, fish, shellfish, wildlife, shorelines, and beaches;
- (B) the effect of disposal of pollutants on marine life including the transfer, concentration, and dispersal of pollutants or their byproducts through biological, physical, and chemical processes; changes in marine ecosystem diversity, productivity, and stability; and species and community population changes;
- (C) the effect of disposal, of pollutants on esthetic, recreation, and economic values;

¹ 40 CFR 230.3(c) defines aquatic environment and aquatic ecosystem to mean “waters of the United States, including wetlands that serve as habitat for interrelated and interacting communities and populations of plants and animals.”

² EPA explained its understanding of the statutory language in CWA Section 404(b)(1) by noting as follows: “Congress recognized that the material to be disposed of under section 404 might be different from materials typically disposed of at sea and that section 404 waters might be affected somewhat differently than the seas.” 44 Fed. Reg. 54,224 (Sept. 18, 1979) (proposed version of 404(b)(1) Guidelines).

- (D) the persistence and permanence of the effects of disposal of pollutants;
- (E) the effect of the disposal at varying rates, of particular volumes and concentrations of pollutants;
- (F) other possible locations and methods of disposal or recycling of pollutants including land-based alternatives; and
- (G) the effect on alternate uses of the oceans, such as mineral exploitation and scientific study.

Under this statutory authority, EPA adopted the current version of its regulations known as the Guidelines in 1980. See 45 Fed. Reg. 85,336-357 (Dec. 24, 1980) (codified in 40 CFR Part 230). In adopting the Guidelines, EPA clarified in the adopting preamble that a “certain amount of flexibility” was intended when applying the Guidelines.³ EPA codified that flexibility within the actual language of the Guidelines⁴ The flexibility inherent in the Guidelines is also addressed in the EPA document entitled “*Memorandum: Appropriate Level of Analysis Required for Evaluating Compliance with the Section 404(b)(1) Guidelines Alternatives Requirements*,” (Aug. 23, 1993).

The Guidelines contain several restrictions on discharges of dredged or fill material. Notably, the Guidelines provide that “[e]xcept as provided under [CWA] section 404(b)(2), no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States.”⁵ According to 40 CFR 230.10(c)(1)-(4), the Guidelines specifically identify what effects from a discharge of dredged or fill material could contribute to significant degradation when considered individually or collectively⁶:

³ See 45 Fed. Reg. at 85,336

⁴ See, e.g., 40 CFR 230.6(a) (“The manner in which these Guidelines are used depends on the physical, biological, and chemical nature of the proposed extraction site, the material to be discharged, and the candidate disposal site, including any other important components of the ecosystem being evaluated. These Guidelines allow evaluation and documentation for a variety of activities, ranging from those with large, complex impacts on the aquatic environment to those for which the impact is likely to be innocuous.”); 40 CFR 230.10 (“Although all requirements in §230.10 must be met, the compliance evaluation procedures will vary to reflect the seriousness of the potential for adverse impacts on the aquatic ecosystems posed by specific dredged or fill materials discharge activities.”).

⁵ 40 CFR 230.10(c)

⁶ See, e.g., *Kentuckians for the Commonwealth v. Corps*, 746 F.3d 698, 702-3 (6th Cir. 2014); *Bering Strait Citizens for Responsible Resource Development v. Corps*, 524 F.3d 938, 949 n.6 (9th Cir. 2008); *Sierra Club v. Corps*, 772 F.2d 1043, 1052-53 (2nd Cir. 1985).

- Significantly adverse effects of the discharge on human health or welfare, including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites.
- Significantly adverse effects of the discharge on life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes;
- Significantly adverse effects of the discharge on aquatic ecosystem diversity, productivity, and stability. Effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; or
- Significantly adverse effects of discharge on recreational, aesthetic, and economic values.

Except as provided under Section 404(b)(2) of the CWA, no discharge shall be allowed if there is a practicable alternative that would have less adverse impacts. The significant degradation determination must be made on “appropriate factual determinations, evaluations, and tests required by [40 CFR Part 230,] subparts B and G, after consideration of subparts C through F, with special emphasis on the persistence and permanence of the effects outlined in those subparts.”⁷ The Guidelines require the permitting authority to “determine in writing the potential short-term or long-term effects of a proposed discharge on the physical, chemical, and biological components of the aquatic environment in light of [40 CFR Part 230] subparts C through F”⁸ and to make certain “compliance” or “non-compliance” findings with respect to discharge restrictions.⁹

When making the factual determinations required under 40 CFR 230.11, the permitting authority will “as necessary” use the evaluation and testing procedures for dredged or fill material described in 40 CFR 230.60 and 230.61. Results from prior evaluations, chemical and biological tests, scientific research, and experience, should be used when appropriate in making the factual determinations required under 40 CFR 230.11 and such results may make new testing unnecessary. An evaluation under 40 CFR

⁷ 40 CFR 230.10(c)

⁸ 40 CFR 230.11

⁹ 40 CFR 230.12; *See, e.g., Utahns for Better Transp. v. U.S. Dept. of Transp.*, 305 F.3d 1152, 1191 (10th Cir. 2002) (“The regulations pursuant to the CWA require the permitting authority to determine in writing the potential short-term or long-term effects of a proposed discharge on the physical, chemical, and biological components of the aquatic environment. 40 C.F.R. § 230.11. Such factual determinations are to be used in deciding whether a discharge will result in significant degradation and, therefore, the applicant cannot receive a permit.”); *Town of Norfolk v. Corps*, 968 F.2d 1438, 1454 (1st Cir. 1992).

230.60(b) is required to assess whether the proposed dredged or fill material contains contaminants. If the dredged or fill materials is not a carrier of contaminants, then the required determinations pertaining to the presence and effects of contaminants can be made without testing.¹⁰ Even if the evaluation under 40 CFR 230.60(b) determines there is a high probability that the dredged or fill material proposed for discharge is a carrier of contaminants, testing may not be necessary if constraints are available to reduce contamination to acceptable levels within the disposal site and to prevent contaminants from being transported beyond the boundaries of the disposal site.¹¹ If testing is necessary, 40 CFR 230.61 describes potentially applicable evaluation and testing procedures.

Some of the potential effects from a proposed discharge of dredged or fill material that may be required to be evaluated under 40 CFR Part 230, Subparts C through F include:

- Substrate
- Suspended Particulates and Turbidity
- Water
- Current Patterns and Water Circulation
- Normal Water Fluctuations
- Human use

Substrate refers to the organic and inorganic solid materials and the material, whether liquid, solid or gas, between the spaces of particles that underlay aquatic ecosystems such as streams and wetlands. The discharge of dredged or fill materials can change the physical, chemical and/or the biological characteristics of substrate. These discharges can also change the circulation, depth, patterns, water fluctuations and water quality of an aquatic system. These changes, individually or cumulative, can adversely affect bottom-dwelling organisms¹².

Evaluation of substrate should include substrate elevation and slope, a comparison of the fill material and the substrate at the discharge site, characterization of the dredged/fill material, physical effects on any benthos, invertebrates and vertebrates, erosion and accretion patterns, and actions proposed to avoid and the minimize impacts.

Suspended particulates in an aquatic ecosystem can destroy some aquatic organisms and in others, interfere with their life cycles, including their abilities to grow and reproduce. Suspended particulate matter also

¹⁰ 40 CFR 230.60(a)

¹¹ 40 CFR 230.60(d)

¹² 40 CFR 230.20

contributes to lower water quality in that metals, pathogens and other pollutants can easily be absorbed in this suspended matter.¹³

Evaluation of suspended particulates should include expected changes in suspended particle and turbidity levels, effects on the chemical and physical properties with the water column, effects of biota and actions proposed to avoid and the minimize impacts.

Any change to the physical, chemical or biological characteristics of the receiving waters can alter the nature of that water. Discharge to dredged or fill materials to waters can increase nutrient loading, increase biological oxygen demand (BOD) and chemical oxygen demands (COD) as well as host of other problems including, but not limited to: increase in turbidity resulting in aquatic organism inability to live and/or reproduce, increase in nutrient loading can cause algae blooms resulting in toxic conditions, suffocation of aquatic life, odor and visual issues, or inhibition of flow.¹⁴

Evaluations should address effects to special aquatic sites, effects on threaten and endangered species, including their habitats, effects on other animals, effects on terrestrial plants, actions proposed to avoid and the minimize impacts, including compensatory actions taken and monitoring of mitigation actions.

Current patterns and water circulation are a major factor in defining an aquatic system. Changes to these can have significant affects not only on the aquatic system, but also on the organisms that live within that system. Impacts can include but are not limited to loss of substrate and characteristics, loss and change of shoreline, change in erosion rates, increase sedimentation, change in deposition rates, and changes in biological and chemical nature of the system.¹⁵ Evaluation of water patterns and circulations should address water quality, the current state of flow patterns and circulation and the after-discharge state of flow patterns and circulations, and actions proposed to avoid and the minimize impacts.

Water Fluctuations are a regular and expected part of any aquatic system. The physical, chemical and biological nature of a system is impacted by these fluctuations, so any changes can have adverse impacts.¹⁶

¹³ 40 CFR 230.21

¹⁴ 40 CFR 230.22

¹⁵ 40 CFR 230.23

¹⁶ 40 CFR 230.24

Human use must also be considered when assessing significant degradation. How does the proposed action impact water supplies (public and private), recreation, fishing (commercial and private), and aesthetics, parks, national monuments, and preserves.¹⁷

Significant degradation also must consider cumulative impacts, which are described in the Guidelines as “the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material.”¹⁸ Cumulative impacts “should be predicted to the extent reasonable and practicable.”¹⁹ Cumulative impacts are defined and applied under the 404(b)(1) Guidelines differently and more narrow than under federal NEPA²⁰.

Significant degradation must also consider secondary effects, which are described as “effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material.”²¹ Examples of secondary effects include “fluctuating water levels in an impoundment and downstream associated with the operation of a dam, septic tank leaching and surface runoff from residential or commercial developments on fill, and leachate and runoff from a sanitary landfill located in waters of the U.S.”²²

Based on both the clear language in the regulations and supporting case law analysis, the scope of review/analysis for purposes of significant degradation determinations under the 404(b)(1) Guidelines is generally limited to potential impacts on the aquatic environment/aquatic ecosystem/ from the actual discharge of dredged or fill material to jurisdictional waters.²³ According to 40 CFR 230.2(a) “Applicability”,

¹⁷ 40 CFR 230.50-54

¹⁸ 40 CFR 230.12(g)(1)

¹⁹ 40 CFR 230.12(g)(2)

²⁰ See, e.g., *City of Shoreacres v. Waterworth*, 420 F.3d 440, 449 (5th Cir. 2005) (“cumulative impacts” under the 404(b)(1) Guidelines is focused on changes to the aquatic ecosystem attributable to actual “discharges” of dredged or fill material); *Utahns for Better Transp. v. U.S. Dept. of Transp.*, 305 F.3d 1152, 1191 (10th Cir. 2002).

²¹ 40 CFR 230.12(h)(1)

²² 40 CFR 230.12(h)(2)

²³ See, e.g., *Ohio Valley Env'l v. Corps*, 828 F.3d 316, 324 (4th Cir. 2016) (“These provisions [e.g., 40 CFR § 230.10(c)] certainly require the Corps to take into account the public-health effects of a proposed discharge of fill material before granting a section 404 permit. They do not, however, create an obligation for the Corps to study the effects of activities beyond the proposed discharge itself.”); *Kentuckians for the Commonwealth v. Corps*, 670 F. Supp. 670, 684-85 (W.D. Ky. 2013), aff'd, 746 F.3d 698 (6th Cir. 2014); *Bering Strait Citizens for Responsible Resource Development v. Corps*, 524 F.3d 938 (9th Cir. 2008) (“The CWA analysis is primarily (but not exclusively) concerned with the aquatic ecosystem . . . while the NEPA analysis is more broad and procedurally oriented.”); *City*

the scope of the Guidelines is "...applicable to the specification of disposal sites for discharges of dredge and fill material into waters of the United States." The 404(b)(1) Guidelines further provide that "no discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem."²⁴ In addition, a proposed discharge fails to meet the requirements of the Guidelines if it does not include all appropriate and practicable measures to minimize potential harm to the aquatic ecosystem.²⁵ Under these provisions, if a proposed discharge of dredged or fill materials determined not to cause or contribute to significant degradation, a 404 permit arguably can be issued without conditions. However, if a proposed discharge of dredged or fill material is found to cause or contribute to significant degradation, a 404 permit cannot be issued unless appropriate and practicable conditions to minimize or compensate for this degradation are included in the permit.²⁶

A separate but somewhat related restriction on discharges of dredged or fill material in the 404(b)(1) Guidelines is that "[n]o discharge of dredged or fill material shall be permitted if it . . . [c]auses or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable State water quality standard."²⁷ According to EPA's Water Quality Standards Handbook²⁸ State water quality standards consist of four elements: (1) designated use or uses such as "supporting aquatic life"

of *Shoreacres v. Waterworth*, 420 F.3d 440, 449 (5th Cir. 2005) ("40 C.F.R. 230.10(c) does not, however, require the Corps to consider the effects of the Bayport terminal itself once it begins operations. Instead, section 230.10(c) requires the Corps to consider whether 'the discharge of dredged or fill material [pursuant to a 33 U.S.C. 1344 permit] will cause or contribute to significant degradation of the waters of the United States' (emphasis added), not the effect of any completed project. 40 C.F.R. 230.10(c)(3) (instructing the regulatory agency to consider '[s]ignificantly adverse effects of the discharge of pollutants on aquatic ecosystem diversity') (emphasis added); 40 C.F.R. 230.11(g) (defining a "cumulative impact" for the purposes of the CWA as "changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material") (emphasis added).

²⁴ 40 CFR 230.10(d)

²⁵ 40 CFR 230.12(a)(3)(iii)

²⁶ See, e.g., *City of Olmsted Falls v. EPA*, 435 F.3d 632, 637-38 (6th Cir. 2006) ("It was neither arbitrary nor capricious for the Corps Defendants to balance the environmental harm caused by the project against the benefits of the proposed mitigation and find that, on balance, the project would not contribute to a significant degradation of the waters of the United States.")

²⁷ 40 CFR 230.10(b)(1)

²⁸ U.S. Environmental Protection Agency (EPA). 2017. Water Quality Standards Handbook: Chapter 1: General Provision, Page 2, EPA-823-B-17-001. EPA Office of Water, Office of Science and Technology, Washington, DC. Accessed November 2018. <https://www.epa.gov/sites/production/files/2014-10/documents/handbook-chapter1.pdf>

or “recreation”; (2) water quality criteria (either numeric or narrative) necessary to protect the designated uses; (3) antidegradation requirements; and (4) general policies affecting the application and implementation of water quality standards that states and authorized tribes may include at their discretion (e.g., mixing zone, variance, and critical low-flow policies). With respect to discharges of dredged or fill material to wetlands (and presumably any other types of waters) and antidegradation,²⁹ EPA’s Water Quality Standards Handbook³⁰ explains as follows:

“EPA interprets section 131.12(a)(1) of the antidegradation policy to be satisfied with regard to fills in wetlands if the discharge did not result in “significant degradation” to the aquatic ecosystem as defined under section 230.10(c) of the section 404(b)(1) Guidelines.”

The section 404(b)(1) Guidelines state that the following effects contribute to significant degradation, either individually or collectively:

“... significant adverse effects on (1) human health or welfare, including effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites (e.g., wetlands); (2) on the life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, or spread of pollutants or their byproducts beyond the site through biological, physical, or chemical process; (3) on ecosystem diversity, productivity, and stability, including loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; or (4) on recreational, aesthetic, and economic values.”

These Guidelines may be used by States to determine “significant degradation” for wetland fills. Of course, the States are free to adopt stricter requirements for wetland fills in their own antidegradation polices, just as they may adopt any other requirement more stringent than Federal law requires. (Emphasis added).³¹

²⁹ 40 CFR 131.12(a)(1) of EPA’s antidegradation policy provides as follows: “Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.”

³⁰ U.S. Environmental Protection Agency (EPA). 2017. Water Quality Standards Handbook: Chapter 3: Water Quality Criteria, Page 7, EPA-823-B-17-001. EPA Office of Water, Office of Science and Technology, Washington, DC. Accessed November 2018. <https://www.epa.gov/sites/production/files/2014-10/documents/handbook-chapter3.pdf>

³¹ Arizona law prohibits the State from adopting any requirement as part of an assumed Section 404 permitting program that is more stringent than the corresponding federal law. See, e.g., A.R.S. 49-104(A)(16)) (requiring ADEQ to “ensure that state laws, rules, standards, permits, variances and orders are adopted and construed to be consistent with an no more stringent than the corresponding federal law that addresses the same subject matter”);

As part of Arizona's surface water quality standards, ADEQ has adopted antidegradation regulatory requirements. These regulations are codified in AAC R18-11-107 and 107.01. Under these regulations degradation of water quality in a surface water is determined on a pollutant by pollutant basis³² Contrary to most other states' antidegradation requirements (including states such as Florida, Michigan, and New Jersey), Arizona's antidegradation regulations specifically address antidegradation in the context of CWA Section 404 permitting. For example, the regulations provide at AAC R18-11-107.01(D) as follows:

Antidegradation review of a § 404 permit. The Director shall conduct the antidegradation review of any discharge authorized under a nationwide or regional § 404 permit as part of the § 401 water quality certification prior to issuance of the nationwide or regional permit. The Director shall conduct the antidegradation review of an individual § 404 permit if the discharge may degrade existing water quality in an OAW or a water listed on the 303(d) List of impaired waters. For regulated discharges that may degrade water quality in an OAW or a water that is on the 303(d) List of impaired waters, the Director shall conduct the antidegradation review as part of the § 401 water quality certification process.

The regulation further provides at AAC R18-11-107.01(C)(4) that "[a] discharge regulated under a Section 404 permit that may affect existing water quality of an [outstanding Arizona water] requires an individual Section 401 water quality certification to ensure that existing water quality is maintained and protected an any water quality impacts are temporary. Temporary water quality impacts are those impacts that occur for a period of six weeks or less."

For decades now, the Arizona-Nevada Area Office of the Los Angeles District of the Corps, with EPA oversight and review, has been assessing significant degradation related to discharges of dredged or fill material into jurisdictional waters, including wetlands, under the Guidelines. During this same period, ADEQ has been issuing CWA Section 401 water quality certifications for Corps-issued nationwide and individual 404 permits on non-tribal lands in Arizona. With respect to CWA Section 401 and its application

A.R.S. § 49-256.01(A) ("For purposes of implementing the permit program established by 33 United States Code section 1344, the director may establish by rule a dredge and fill permit program that is consistent with and no more stringent than the clean water act dredge and fill program, including a permitting process.")

³² AAC R18-11-107(A)

after a state or tribe obtains primacy over the CWA Section 404 permitting program, the page 11 of the *Section 404 Program Assumption: A Handbook for States and Tribes*³³ clarifies as follows:

State/tribal administration of §404 replaces the §401 water quality certification process. Where a §404 permit is issued by the state or tribe under state/tribal law, then §401 certification is not required (i.e. there is no federal action). This does not change the essential water quality requirements under §404 – the state/tribal program must still ensure compliance with state/tribal water quality standards in conformance with the 404(b)(1) guidelines. However, a separate review process is unnecessary.

Minimal Requirements for Equivalent Protection and Hard Spots

Arizona's implementing statute for assuming the Corps' 404 program provides that any rules adopted by ADEQ for purposes of assuming and implementing the CWA Section 404 permit program must "ensure compliance with the applicable requirements of Section 404 of the Clean Water Act, including the guidelines issued under 33 United States Code Section 1344(b)(1)."³⁴ In addition, EPA's 404 state program regulations specifically require a state 404 program to comply with applicable statutory and regulatory requirements, including the 404(b)(1) guidelines.³⁵ Because of these requirements, it is recommend that ADEQ incorporate by reference the Guidelines, with the exception of certain provisions in the guidelines that are determined not to be applicable to (such as the definition of "waters of the United States" found in § 230.3(o)) or relevant to Arizona's unique aquatic ecosystems (e.g., 230.44 (addressing coral reefs)).

ADEQ will need methods to evaluate impacts from the proposed discharge of dredged or fill material on the aquatic environment to determine effects. A possible way is to classify effects as 1) No effect, 2) Negligible, 3) Short-term minor, 4) Long term minor, and 5) Major (significant). While the methods for evaluating effects are found in the Guidelines, ADEQ may want to further describe these methods and

³³ The Association of State Wetland Managers, Inc. & The Environmental Council of the States. 2011. Accessed November 2018. <https://www.aswm.org/wetland-programs/s-404-assumption/1221-cwa-section-404-program-assumption-a-handbook-for-states-and-tribes>

³⁴ A.R.S. § 49-256.01(C)(2)

³⁵ 40 CFR §§ 233.20(a), 233.21(b), 233.23(a), 233.32(d)(6), and 233.34(a)

their application to Arizona's unique aquatic environment in guidance or a 404 permitting handbook. ADEQ could require the application to provide discussion on any probable impacts, including their rationale for these impacts and to suggest a determination. Consistent with the Guidelines, ADEQ would then be responsible for reviewing the discussion, rational provided and suggested finding in order to make a final determination. ADEQ should have the right to request additional information on any determination.

Evaluation criteria should be appropriate to the type of discharges and aquatic ecosystem being considered. For instance, proposed discharges of dredged or fill material to ephemeral drainages should not trigger the same level of review as discharges to other types of waters. Criteria should be identifiable and defined, perhaps in supporting guidance or a CWA Section 404 permitting handbook.

The scope of analysis for purposes of significant degradation should be clarified consistent with the language in the Guidelines. In other words, the scope of analysis should be limited to a determination of effects on the aquatic environment from discharges of dredged or fill material and applicable to the location of the discharge. This could be clarified in the regulations incorporating by reference the Guidelines as well as in the Memorandum of Agreement with EPA envisioned under the state assumption regulations in 40 CFR Part 233.

Program Comparison and Identification of Gaps

Cumulative impacts also should be considered, when appropriate at a watershed level to obtain an accurate picture of effects on the ecosystem.

All methods for assessment and implementation of water quality standards must be available to the public.

Because Arizona's antidegradation regulations are currently focused on implementation of antidegradation to Corps issuance of Section 404 permits, ADEQ should consider amending the antidegradation regulations to also address implementation of antidegradation once Arizona assumes the Corps' 404 program.

State Program Implementation Options

- Incorporate by reference the Guidelines into the state program assumption regulations, including the requirements applicable to determine significant degradation related to a permitted discharge of dredged or fill material.
- Consider requiring submittal of information sufficient to determine compliance with the Guidelines, including determination of significant degradation, as part of permit application, including provisions to allow for ADEQ to request additional information.
- Consider adopting significant degradation evaluation criteria appropriate to the type of discharges and aquatic ecosystem being evaluated, perhaps in supporting guidance or a CWA Section 404 permitting handbook. Proposed discharges of dredged or fill material to ephemeral drainages should not trigger the same level of review as discharges to other types of waters. Evaluation criteria should be identifiable and defined, perhaps in supporting guidance or a CWA Section 404 permitting handbook.
- Cumulative impacts evaluated according to the Guidelines should be assessed at a watershed level to obtain an accurate picture of effects on the ecosystem.
- All methods for assessment and implementation of water quality standards must be available to the public.
- Because Arizona's antidegradation regulations are currently focused on implementation of antidegradation to Corps issuance of Section 404 permits, ADEQ should consider amending the antidegradation regulations to also address implementation of antidegradation once Arizona assumes the Corps' 404 program.
- The scope of analysis for 404(b)(1) significant degradation determinations (and for other aspects of the Guidelines) under state assumption of the Corps' 404 program should be limited to a determination of effects on the aquatic ecosystems environment (i.e., waters of the US) from discharges of dredged or fill material and applicable to the location of the discharge. This could be clarified in the regulations incorporating by reference the Guidelines as well as in the Memorandum of Agreement with EPA envisioned under the state assumption program regulation in 40 CFR Part 233.
- To address the perceived public notice and comment concern expressed under the Minority Opinion and consistent with Arizona's public participation and administrative procedure laws³⁶

³⁶ See, e.g., A.R.S. § 41-1092.03 (required notice of appealable agency actions); A.R.S. § 49-208 (public participation); A.R.S. § 49-323(A) (appeals of individual permits to Water Quality Appeals Board);

and existing water quality permitting regulations,³⁷ consider ensuring that the state assumption regulations include public notice and participation requirements for draft individual 404 permits proposed to be issued by ADEQ. Such public notice and the corresponding opportunity for comment should include a copy of the proposed draft permit as well as documentation of compliance with the Guidelines.

³⁷ See, e.g., A.A.C. R18-9-108, 109 (APP); A.A.C. R18-9-A907, A908 (AZPDES).

Alternatives Analysis

Introduction

In processing CWA Section 404 permits, the Corps is bound by the requirements of the Guidelines, promulgated in 1980 with the intention to restore and maintain the chemical, physical, and biological integrity of waters of the United States through the control of discharges of dredge or fill material³⁸. While all Section 404 permit applicants are required to comply with the Guidelines, generally only Individual Permits (IP) require the applicant to demonstrate they have addressed all portions of the Guidelines. General permits (Nationwide [NWP] and Regional General Permits [RGP]) are typically considered to have met the Guideline criteria, provided that the proposed discharge of dredged or fill material meets applicable restrictions on discharge³⁹. By their nature, discharges of dredged or fill material that qualify for coverage under general permits are presumed to have less than minimal adverse effect on the aquatic environment, and a robust evaluation of alternatives to the proposed discharge is not warranted, though the Corps may require compensatory mitigation for permit coverage.

Compliance with the Guidelines requires an evaluation of an appropriate suite of alternatives to the proposed discharge of dredged or fill material to ensure that impacts to waters of the US are minimized. Specifically, 40 C.F.R. 230.10(a) states that no discharge of dredge or fill material shall be permitted if there is a practical alternative that would have less adverse impact on the aquatic ecosystem (known as the Least Damaging Practicable Alternative [LEDPA]), provided that LEDPA does not have any other significant adverse environmental consequences on the environment⁴⁰. This analysis allows the Corps to evaluate the effects of their federal action relative to other potential alternatives available. The Corps determination of compliance or non-compliance with the Guidelines is based on a set of factual determinations⁴¹ which ultimately result in the issuance of official findings.⁴²

³⁸ 40 CFR Part 230.1(a) purpose and policy

³⁹ 40 CFR 230.10

⁴⁰ Unites State Army Corps of Engineers, Fort Worth Division, Preparing an Alternatives Analysis Under Section 404 of the Clean Water Act, November 2014

⁴¹ 40 CFR 230.11

⁴² 40 CFR 230.12

Current State of Regulations and Program

Project Purpose and Need

Under current state, the applicant includes with the 404 permit application a statement describing the applicant's purpose and need for the activity associated with a proposed discharge of dredged or fill material. The "purpose" describes the nature of the activity or project, while the "need" describes the market or other interest in the project. The purpose and need statement is determined by the applicant and generally straightforward. A description of project need does not require a robust market analysis but is reflective of the applicant's experience with similar projects.

From the applicant's purpose and need statement, the Corps will develop both a *basic project purpose* and an *overall project purpose*. The basic project purpose, also known as the water dependency test, defines the project very narrowly in order to determine whether the project requires the discharge of dredged or fill material to waters of the US. For example, the Corps may describe the basic project purpose of a housing development project as simply "housing," and that project therefore would not be water dependent. If a given project is not water dependent, and the proposed project will impact a special aquatic site (e.g. a wetland), the Guidelines presume that a practicable alternative to the proposed project exists that would not impact a special aquatic site, unless clearly demonstrated otherwise.⁴³

The overall project purpose, by contrast, is used to identify the range of alternatives to the proposed discharge to be evaluated under the Guidelines. Corps guidance directs that the overall project purpose be reflective of an applicant's purpose and need, but not be so narrowly defined as to preclude the review of an adequate range of alternatives. In the above housing example, the overall project purpose may be defined as, for instance, "a single-family housing development in northwest Tucson." By comparison, an overall project purpose such as "a 420-house development on the 200-acre parcel on the southwest corner of 1st Street and Wilson Ave" would be too narrowly defined to allow for an adequate range of alternatives.

Range of Alternatives

Once the overall project purpose is defined, alternatives to the proposed discharge or dredged or fill material may be identified for analysis. The Guidelines require that only *practicable* alternatives be carried forward for evaluation. An alternative is considered practicable if it is available and capable of being done after taking into consideration cost, logistics, and technology in light of the overall project purpose. In this

⁴³ 40 CFR 230.10(a)(3)

context, cost is not based on an applicant's financial standing, level of investment, or market share, but rather whether or not a given alternative is unreasonably expensive when compared to similar projects.

The Guidelines note the following about alternatives to be evaluated:

- Practicable alternatives may include alternatives that do not discharge to waters of the US, or alternatives that discharge to waters of the US in other locations;
- Offsite alternatives (including those not currently owned by the applicant) may be considered practicable if they "could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity."
- As noted above, if a proposed discharge impacts a special aquatic site but the project associated with the discharge is not water dependent, the Guidelines presume that there is a practicable alternative that does not impact a special aquatic site. The Guidelines also presume that an alternative that does not impact a special aquatic site will result in less environmental damage than one that does.

The geographic range of alternatives is determined by the overall project purpose and may vary considerably from one project to the next. Expansion of an existing facility will necessarily have a narrower geographic range of alternatives than the development of a new industrial facility that is primarily constrained by access to an adequate transportation network.

Scope of Analysis

The Guidelines are clear that the scope of analysis for alternatives analyses is focused on the adverse impact of proposed discharges of dredged or fill material relating to a practicable alternative on the aquatic ecosystem (defined as waters of the United States that serve as habitat for interrelated and interacting communities and populations of plants and animals).⁴⁴ This focus on impacts to waters of the United States from proposed discharges ultimately allows for determination of LEDPA. The practicable alternative that has proposed discharges determined to have less adverse impact on the aquatic ecosystem is considered the LEDPA, unless this alternative has other significant adverse environmental

⁴⁴ 40 CFR 230.10(a). Note that 40 CFR 230.10(a)(4) contains a discussion of "actions subject to NEPA . . . where the Corps of Engineers is the permitting agency" and clarifies that the Corps' NEPA alternatives findings in some cases may satisfy the alternatives analysis under the Guidelines. This regulation also clarifies that NEPA may address a broader range of alternatives than required under the Guidelines, although the Guidelines may require consideration of alternative in more detail. However, if Arizona assumes authority for the Section 404 permit program for the assumable waters of the United States in Arizona, its issuance of 404 permits will not be subject to NEPA and the Corps will not be the permitting agency.

consequences. Consequently, while the scope of analysis is focused on the adverse impact of proposed discharges of dredged or fill material relating to a practicable alternative on waters of the US, the LEDPA determination in certain situations also may require consideration of other significant adverse environmental consequences with respect to a particular practicable alternative.

Both the Guidelines⁴⁵ and a subsequent memorandum by the EPA and the Corps⁴⁶ emphasize that the level (or scope) of analysis required for the 404(b)(1) alternatives analysis should be commensurate with the potential extent of adverse impacts on the aquatic environment from the proposed discharge of dredged or fill material. Projects with minimal discharges, such as a road crossing that does not meet the thresholds for NWP coverage, would not warrant the level of review that may be required for projects with proposed substantial discharges to significant aquatic ecosystems, such as wetlands or perennial waters.

Determination of Effects

The alternatives analysis completed in conformance with the Guidelines must disclose not only the direct effect of the discharge of fill on waters of the US but also the secondary and cumulative effects of the discharge to the aquatic environment.

Secondary effects refer to effects to the aquatic environment that are associated with the permitted discharge of dredged or fill material but that do not result directly from the discharge. The Guidelines provide as examples of secondary effects the downstream effects of the construction of a dam, or the leaching from a septic tank constructed in fill.

By contrast, cumulative effects refer to the effects of the permitted discharge of dredge or fill material in the context of other unrelated discharges. While the effect of a single permitted discharge or dredged or fill material may be minor, the total effect of multiple individual discharges on a single aquatic resource may be significant

Alternatives Analysis Development

In practice, the applicant typically prepares the alternatives analysis, in conformance with the Guidelines. The selection of alternatives is informed by engineering and design alternatives analyses that are often completed for activities with proposed discharges or dredged or fill material that require an Individual Permit. However, it should be noted that the criteria used to identify a preferred alternative (or alternatives) in engineering and design analyses are not necessarily reflective of the Guidelines. That is,

⁴⁵ 40 CFR 230.6

⁴⁶ *Memorandum: Appropriate Level of Analysis Required for Evaluating Compliance with the Section 404(b)(1) Guidelines Alternatives Requirements*. Last updated December 18, 2017.

an alternative that may be preferred from an engineering perspective (due to cost, etc.) will not necessarily represent the LEDPA, or permissible alternative. The alternatives analysis is reviewed by the Corps and either accepted as written or revised based on Corps comments. While the applicant typically provides the bulk of the analysis, the Corps is ultimately responsible for ensuring that the Guidelines are followed. If the analysis does not comply with the Guidelines, the Corps may not issue a permit.

Minimal Requirements for Equivalent Protection and Hard Spots

Incorporation of the Guidelines, specifically the alternatives analysis described at 40 CFR 230.10(a), would provide a reasonable first step in providing comparable levels of protection of the aquatic environment in the State of Arizona.

However, it should be noted that, in a teleconference with EPA Region 9 Wetlands staff, the EPA indicated that they have typically disagreed with the Corps' interpretation of the scope of analysis for the Corps' 404(b)(1) alternatives analyses. The EPA noted that the Corps' analyses generally did not contain the level of detailed evaluation that the EPA believed is called for in the Guidelines. As such, despite the flexibility inherent in the Guidelines, there are at least some in EPA Region 9 that have a more aggressive view of what is the required scope of analysis under the Guidelines as applied to the Corps and presumably to a state-assumed program.

Program Comparison and Identification of Gaps

Although the State of Arizona has a process for evaluating alternatives under Tier 2 of the antidegradation criteria found in Arizona's surface water quality standards⁴⁷ that evaluation is focused solely on water quality and inadequate to comply with the Guidelines. As such, adoption of the Guidelines (particularly 40 CFR 230.10(a)(1)) will help ensure that the State's program will meet EPA requirements.

State Program Implementation Options

Other Federal Regulations

Under the Corps' 404 program, the Corps is required to meet certain obligations under the National Environmental Policy Act (NEPA), as well as its consultation obligations under Section 7 of the Endangered Species Act (ESA) and Section 106 of the National Historic Preservation Act (NHPA). Those obligations will not carry forward under a state assumed program.

⁴⁷ A.A.C. R18-11-107.01(B)(3)(a)

Protection of the resources considered in the ESA and NHPA are being addressed by other TWGs. Consideration of effects to, and protections of, other, non-aquatic resources currently considered by the Corps under NEPA will not carry forward to a state assumed program.

Scope of Analysis

As noted above, the Corps' scope of analysis for 404 permits is often driven by their obligations under NEPA, as defined by rule and substantial subsequent case law. That authority may extend into uplands and in some cases well into the uplands. However, those NEPA obligations will not carry forward with the delegation of the 404 program to the State, and it is reasonable to conclude that the State's authority under the delegated program will be limited to the dredged or fill activity within waters of the US. The consideration of secondary and cumulative effects, likewise, will be focused on the permitted dredged or fill activity and the effects to the aquatic environment (i.e., waters of the United States). Given EPA Region 9's apparent disagreement with this scope of analysis, Arizona should ensure in its Memorandum of Agreement with EPA that the scope of analysis is appropriately clarified and limited to the dredged or fill activity within waters of the US.

With regard to the development of alternatives in conformance with the Guidelines, attention should be focused on identifying those alternatives to the proposed discharges of dredged or fill material that would have less effect on the aquatic environment. The applicant and the State need not consider alternatives based on effects outside the dredge or fill discharge activity itself.

Avoidance and Minimization

Introduction

The avoidance and the minimization of impacts to waters of the United States and other environmental resources is a critical aspect of the Corps' 404 program. Avoidance and minimization measures are intended to preserve existing resources and are a necessary commitment that allows for evaluation of impacts from a proposed discharge of dredged or fill material on waters of the US. With respect to significant degradation and the alternative analysis requirements associated with the current Corps' 404 program, the implementation of discharges in a way which avoids and minimizes impacts to the aquatic environment not only benefits these resources but the demonstration of such avoidance and minimization is required for reaching LEDPA determinations. With the assumption of the Corps' 404 program it will be the responsibility of ADEQ as a regulator and of future permit applicants to understand the commitments which must be made and actions which can be incorporated to avoid and/or minimize discharge impacts.

Current State of Regulations and Program

The current Corps' 404 program requires applicants to incorporate and evaluate avoidance and minimization opportunities for discharges of dredged or fill material which may impact the aquatic environment, including special aquatic sites, water quality and supply, threatened and endangered species and their habitat, recreation, and general aesthetics. As mentioned, Section 230.10(d) of the Guidelines states, "...no discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.". The avoidance of the aquatic environment and the minimization of effects to associated environmental characteristics and values occurs throughout the life-cycle of a discharge of dredged or fill material and numerous actions are available during the planning, design, construction, and maintenance periods which can assist in meeting the requirements of the Guidelines.

The EPA and the Corps approach proposed discharges of dredged or fill material in a three-part sequence, including avoidance, then minimization, and finally compensation. Avoidance is the initial step in the process by which the Corps determines whether or not a discharge alternative is the LEDPA. By approving permits only for LEDPAs the Corps seeks to avoid impacts. After applying avoidance requirements specified in the Guidelines, applicants are directed to provide a range of available actions for minimizing impacts from the proposed discharge of dredged or fill material to the aquatic environment. Finally, all unavoidable impacts to the aquatic environment from the proposed discharge must then be addressed through an approved compensatory mitigation program; however, it is important to consider

that the availability of compensatory mitigation opportunities cannot be considered during preparation of an alternatives analysis and identification of LEDPA. This makes the incorporation of avoidance and minimization actions an important concept and critical to a LEDPA.

The following guidance and understanding is commonly applied to Corps 404 program applications when significant degradation and alternative analysis requirements are applicable:

- 40 CFR Part 230 Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged and Fill Material (Guidelines)
 - 40 CFR Part 230 Subpart H-Actions to Minimize Adverse Effects
 - Potential Impacts identified in 40 CFR Subparts C through F of the Guidelines

Overall, the Guidelines identify situations in which dredge and fill activities which result in a possible impacts to environmental characteristics and values could be considered a potential adverse effect to the aquatic environment. The subparts include:

- Subpart C---Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem
- Subpart D-Potential Impacts on Biological Characteristics of the Aquatic Ecosystem
- Subpart E-Potential Impacts on Special Aquatic Sites
- Subpart F-Potential Effects on Human Use Characteristics

Subparts C through F describe specific effects to environmental characteristics and values which should be considered when making factual determinations and for the evaluating compliance with per Subpart B-Compliance with the Guidelines, Section 230.12 *Findings of compliance or non-compliance with the restrictions on discharge*. The evaluation and associated alternative analysis completed per Subpart B will result in a determination that concludes the proposed discharge of dredged or fill material is 1) in compliance with the requirements of the Guidelines, 2) in compliance with the requirements of the Guidelines with inclusion of appropriate and practicable discharge conditions (i.e., compensatory mitigation) to minimize pollution or adverse effects to the aquatic environment, or 3) fails to comply with the requirements of the Guidelines. If a proposed discharge fails to meet the requirements of the Guidelines, this may be due to a more appropriate practicable alternative being identified, the discharge to the aquatic environment is believed to create significant degradation, or that the proposed discharge does not include all appropriate and practicable measures to avoid or minimize potential impacts to aquatic resources.

For the purposes of compliance with Subpart B, implementation of avoidance and minimization measures which consider the potential loss of environmental characteristics and values discussed in Subparts C through F are critical to developing a LEDPA, reducing potential compensatory mitigation conditions, and addressing likelihood for significant degradation to occur.

Section H of the Guidelines requires applicants to demonstrate efforts to minimize impacts to Waters and associated values and characteristics. Subpart H of the Guidelines reviews various actions and associated avoidance and minimization measures which should be considered by an applicant when documenting an alternative analysis and evaluating for significant degradation. Actions to minimize adverse effects from discharges to the aquatic environment are discussed in Part H and directly respond to the concerns listed in Subparts C through F. These actions may include, but are not limited to:

- Timing discharges of dredged or fill material to occur in times of low water and outside of nesting, breeding and spawning seasons
- Timing of discharge to avoid or minimize impacts to recreation and human activity
- Changing the location and method of the discharge to avoid and minimize adverse effects
- Controlling material before and after discharge, including the use of best management practices for stormwater and erosion control
- Use of appropriate technology, machinery, and/or infrastructure
- Maintaining currents and flow paths
- Avoiding or minimizing impacts to threatened, endangered and sensitive habitat
- Managing discharges so that incompatible habitat is not created
- Maintaining water quality and supply
- Limiting effects to general aesthetics

In general, a single action is sometimes capable of avoiding or minimizing potential adverse effects. For example, timing discharges to occur during times of little to no seasonal flows will assist in reducing turbidity concerns (Subpart C). Timing can also be used to plan projects so that discharges occur outside of specie specific breeding and spawning seasons (Subpart D).

Actions discussed in Part H are inherently geared towards and emphasize situations where dredging and the disposal of material would affect inundated areas (i.e., rivers, lakes, etc.). While many of these actions

and suggested minimization measures would not be commonly considered given the dominant arid west setting in Arizona, each will still be applicable and the degree in which they need consideration would be dependent on location. For example, *Section 230.73 Actions affecting the method of dispersion* is intended to provide guidance on the disposal of material in inundated areas. Dredge and fill activities in lakes or non-TNW rivers is relatively uncommon in Arizona. However, this work is possible and the suggested minimization provided by this section also includes ways to minimize the obstruction of circulation patterns, turbidity, and use of best management practices, which are also needed in ephemeral Waters. As a result, they would continue to be applicable concepts when impacting any perennial, intermittent or ephemeral waters in Arizona.

Minimal Requirements for Equivalent Protection and Hard Spots

Incorporation of the Guidelines, specifically avoidance and minimization actions discussed in Subparts C through F and H, would provide a reasonable level of protection to characteristics and values of resources and the overall aquatic environment in the State of Arizona. The resources of concern and the recommended actions described in the Guidelines would provide continued protection under a state assumed program.

Program Comparison and Identification of Gaps

Avoidance and minimization actions discussed in the Guidelines not only benefit the applicant, but are accepted practices which provide assurances to the federal regulators (i.e., EPA, Corps and USFWS) that impacts to the aquatic environment have been appropriately avoided or minimized. Many of these actions are not well emphasized in the application process and not well known by applicants with little experience with the Corps' 404 program. No comprehensive guidance intended to advise on actions which promote the avoidance and minimization of impact to the aquatic environment currently exists at the Federal (Corps LA District) or at the State level.

A review conducted by the Environmental Law Institute (ELI) titled *The Federal Wetland Permitting Program: Avoidance and Minimization Requirements*⁴⁸ analyzed the avoidance and minimization requirements of the Corps' 404 program and the importance of avoidance and minimization is for meeting the requirements of the Guidelines.

⁴⁸ Environmental Law Institute, *The Federal Wetland Permitting Program: Avoidance and Minimization Requirements*, 2008.

As part of the ELI 2008 review, the availability of resources which can assist prospective applicants with avoidance and minimization actions was evaluated in each of the 38 Corps Districts. The review concluded that a total of 17 Districts provided some level of statement or explanation (i.e., overviews, checklists, frequently asked questions) via their website which expanded upon the need to assess discharge alternatives during the permit review process. At the time of the review, Los Angeles District was not providing additional information on alternative discharge development and/or avoidance and minimization actions beyond direction found in the Guidelines. A check of the Los Angeles District website by this TWG did not yield additional guidance. The review goes on to state that a total of 11 Districts state that the permit applicant "has the responsibility for conducting an alternative analysis or for describing avoidance and minimization measures"⁴⁹. Guidance offered by these Districts varies from a few lines of guidance to lengthy discussions on the Guidelines. Included in these 11 Districts is the Los Angeles District; however, this discussion is contained in the 2008 Final Compensatory Mitigation Rule, but is general and does not provide specifics related to commonly applied actions used to reduce potential loss of environmental characteristics and values discussed in Subparts C through F. Additionally the review concluded that a total of 8 Districts provide applicants specific information and guidance related to avoidance and minimization; however this does not include the Los Angeles District. In general, practicable information and guidance on accepted actions to avoid and minimize loss to environmental characteristics and values is lacking for permit applicants within the Los Angeles District.

Although there is not currently comprehensive guidance intended to promote the avoidance or minimization of aquatic environment with respect to the discharge of dredged or fill material at the ADEQ level, ADEQ has developed potentially relevant guidance under its CWA Section 401 Water Quality Certification program and the Arizona Pollutant Discharge Elimination System program. Each program is designed to protect water quality through the implementation of best management practices and conditions on construction practices.

Administered by ADEQ, the Section 401 program lists conditions intended to avoid and minimize impacts to the aquatic environment as a result of dredge and fill activities requiring a Section 404 permit. The State's Section 401 program is designed to ensure, "...that the [proposed discharge] will not violate surface water quality standards, adversely impact impaired waters (waters that do not meet water quality standards) and that the [proposed discharge] complies with applicable water quality improvement plans

⁴⁹ Environmental Law Institute, Page 18, *The Federal Wetland Permitting Program: Avoidance and Minimization Requirements*, 18, 2008.

(total maximum daily loads).”⁵⁰. Listed in Appendix A in ADEQ’s March 27, 2017 letter titled, “Clean Water Act Section 401 Water Quality Certification for the Re-Issuance of the Clean Water Act 404 Nationwide Permits on March 19, 2017”, ADEQ recommends specific actions, such as the use of best management practices to control unanticipated discharges to waters of the United States and methods to reduce sediment load, which can be taken to avoid and minimize impacts to water quality. These conditions are practicable solutions to address potential water quality concerns associated with dredge and fill activities affecting the aquatic environment. Additionally, these conditions address actions listed in Subpart H and the aquatic environment concerns of Subparts C through F, such as turbidity and aesthetics.

The avoidance and minimization of impacts to the aquatic environment in response to dredge and fill activities is currently being practiced by the Arizona Department of Transportation (ADOT). ADOT Environmental Planning has developed and routinely applies to their proposed discharges or dredged or fill material standardized environmental commitments designed to limit impacts to water quality and prevent disturbance to species and their habitat which may result from general construction practices⁵¹. The environmental commitments have been developed over decades of experience and have been implemented on various discharge types in numerous environmental settings. The environmental commitments are a practicable, current example of a State agency with environmental management responsibility taking steps to limit impacts to the aquatic environment and a point of reference for a state assumed program. In terms of a State assumption program, these environmental commitments also address actions listed in Subpart H and the aquatic environment concerns of Subparts C through F. Furthermore, the environmental commitments implemented by ADOT are accepted actions by the USFWS and Arizona Game and Fish Department and are commonly accepted by the Corps as avoidance and minimization techniques during alternative analysis development.

State Program Implementation Options

Subparts C through F and H of the Guidelines provide specific situations where a loss of environmental characteristics and values would be unacceptable under a Section 404 permit application. If accepted by reference, the Guidelines provide accepted actions which an applicant can implement to avoid and/or minimize potentially adverse effects when planning, designing, constructing or maintaining a proposed discharge or dredged or fill material. While the Guidelines may address situations and resources which are not applicable to Arizona or would occur on an extremely limited basis, those situations are few.

⁵⁰ ADEQ, Water Quality Division: Permits: Clean Water Act (CWA) 401 Water Quality Certification Program, at <https://legacy.azdeq.gov/environ/water/permits/cwa401.html> (last visited November 9, 2018)

⁵¹ A current list of ADOT environmental commitments can be found at <https://www.azdot.gov/business/environmental-planning>.

Overall, the Guidelines provide the ADEQ a sound regulatory foundation which would allow for evaluation of adverse impacts under a State assumed program. The Guidelines also provide permit applicants accepted actions when preparing an alternative analysis and when evaluating for significant degradation.

Should ADEQ move forward with a state assumed program, it is recommended that efforts be made to provide the public and new ADEQ staff with information on what accepted planning, design, construction and maintenance actions can be implemented to promote avoidance and minimization and assists applicants with the interpretation of Subparts C through F. Providing clarity on the Guidelines and making known accepted actions will provide reassurance to potential applicants when proposing discharges of dredged or fill material, and in turn, potentially reduce rework of applications to comply with the Guidelines.

An assumption of the Corps' 404 program which does not carry forward the Guidelines is anticipated to involve a significant effort to redevelop a regulatory framework for a State assumption program. It is this TWG's understanding that the development and implementation of a new permit program is not considered the recommended method of State assumption by the Permit TWG and reviewing the process for that is not in the charter of this TWG; however, if a new state assumed program were to be developed and implemented, it is likely that many of the concerns and actions in 40 CFR Section 230 would still need to be considered and a new state assumed program would need to maintain a commiserate level of analysis to determine impacts to the discussed environmental characteristics and values. During the development of a state assumed program, aquatic environment concerns and the various actions detailed in Subparts C through F and in Subpart H could be revised to better address an expected permitting situation in Arizona with consideration to the State assumption program recommendations provided by the other TWGs.

Minority Opinion

Introduction

Current administration of Section 404 of the Clean Water Act (CWA) by the Army Corps of Engineer (Corps) constitutes a Federal action, and thus triggers application of the National Environmental Policy Act (NEPA). The Environmental Protection Agency (EPA), in discussions about Section 404 assumption with other states, consistently maintains that assumption ends a federal nexus. Thus, NEPA no longer applies. **We assert that, due to the loss of NEPA under state assumption of CWA 404, the state should not assume Section 404 authorities.**

Loss of NEPA is referenced throughout this white paper; i.e. in the Alternatives Analysis, Minimal Requirements for Equivalent Protection and Hard Spots, it is written “. . . there are at least some in EPA Region 9 that have a more aggressive view of what is the required scope of analysis under the Guidelines as applied to the Corps *and presumably to a state-assumed program,*” and in a subsequent paragraph: “Under the Corps’ 404 program, the Corps is required to meet certain obligations under the National Environmental Policy Act (NEPA), as well as its consultation obligations under Section 7 of the Endangered Species Act (ESA) and Section 106 of the National Historic Preservation Act (NHPA). *Those obligations will not carry forward under a state assumed program.* And in the next paragraph: “Protection of the resources considered in the ESA and NHPA are being addressed by other TWGs. Consideration of effects to, and protections of, other, non-aquatic resources currently considered by the Corps under NEPA *will not carry forward to a state assumed program.* And under Scope of Analysis: “However, those NEPA obligations *will not carry forward with the delegation of the 404 program to the State,* and it is reasonable to conclude that the State’s authority under the delegated program will be limited to the dredged or fill activity within waters of the US”.

In the course of the working group discussions about what an Arizona-assumed Section 404 compliance process might look like, there have been suggestions that other laws, including but not limited to CWA 404, substitute for NEPA or do the same thing as NEPA. These suggestions are incorrect. It is the case that CWA 404 and the 404(b)(1) guidelines are, in some instances, consistent with NEPA requirements. This does not mean that the 404(b)(1) guidelines are in any way interchangeable with NEPA.

Important Similarities in NEPA and CWA 404 Processes

The most significant similarity between NEPA and CWA 404 is the requirement to analyze alternatives. Under NEPA, an agency must analyze “reasonable alternatives” to the proposed action in an EIS and

must also analyze alternatives in the context of an EA if there are “unresolved conflicts concerning alternative uses of available resources.”

Under CWA 404, the Corps of Engineers must examine “practicable alternatives”, which are defined as alternatives that are “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. The Corps 404 regulations allow for the possibility that NEPA documents may require a broader range of alternatives than CWA or that CWA may require more detail than necessary under NEPA.

Both NEPA and CWA requires analysis of a wide range of impacts. Under NEPA, the types of impacts to be analyzed include ecological, aesthetic, historic, urban quality, design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures, energy requirements and conservation potential of various alternatives and mitigation measures, natural or depletable resources requirements and conservation potential of various alternatives and mitigation measures, cultural, economic, social and health impacts, whether direct, indirect, or cumulative and whether adverse or beneficial impacts. Public interest considerations under CWA 404 include conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership, and in general, the needs and welfare of the people.

Important Differences in NEPA and CWA 404 Processes

The most striking difference between the two processes as currently implemented by the Corps relates to public review and involvement. The basic thrust of the NEPA process as it pertains to EAs and EISs is to gather public and agency (whether federal, state, local or tribal) input when the action is first proposed, prepare analysis of the various types of potential impacts, put that analysis out for public review (for all EISs and some EAs in draft form) and then publish a final EIS that addresses those comments (and in some cases a final EA). For EISs, a minimum of 45 days of public comment is required and public meetings or hearings are often held. Agencies have a wide range of flexibility concerning public involvement for EAs.

The basic thrust of the CWA 404 process is to publish a public notice within 15 days of receipt of a completed application and to solicit comments from the public and a similar range of agencies as in NEPA prior to doing the analysis. While the Corps’ analytical requirements that follow the public notice are extensive, there is no requirement to uniformly subject that analysis, even for proposed actions, with the most significant impacts, to public review and comment. The District Engineer has discretion to hold a

public hearing if he or she believes that a public hearing is necessary in making a decision, but there is no requirement to do so.

In other words, the Corps process – were it to be conducted only under the 404 regulations without the NEPA process integrated with it – would end public involvement with comments received in response to the public notice. In NEPA parlance, it would end with scoping (that is, the process of soliciting comments from other federal, state, local and tribal agencies and the public to determine what issues should be studied in analyzing the proposed action and alternatives). The analysis would then take place and a decision made without further required public involvement. While the District Engineer may opt to hold a public hearing, it is not required and even if a public hearing is held, the public enjoys no regular set period for review and comment on the analysis. And given the lack of a regular review and comment period on the Corps' analysis, the public and other agencies also generally do not get an opportunity to see a written response to their substantive comments, as they do if the Corps prepares an EIS.

And beyond NEPA, but also lost in the ADEQ Assumption scenario, is the “Environmental Justice” mandate (1994 Executive Order 12898): “... to ensure that potentially affected community residents are meaningfully involved in the decisions that would affect their environment and/or their health”.

Public Interest Review

In terms of impacts analysis, the enumerated types of impacts in both sets of regulations are largely similar. The CWA 404 regulations have more specific requirements in terms of issues related to water. CEQ regulations specify social impacts; the 404 regulations do not, but social impacts may easily be captured under “the needs and welfare of the people”, a factor to consider in the Corps' public interest review. Neither set of regulations specifies climate change impacts, but there are now numerous federal decisions holding that under NEPA, the lead agency is responsible for analyzing such impacts. The lack of such cases under CWA may or may not reflect plaintiffs' choice of law given the now considerable body of NEPA case law related to climate change. Similarly, federal courts have made it clear that health impacts are cognizable under NEPA whereas there is little to no case law on that point under the CWA. And, as noted earlier, the CWA regulations do not require analysis of indirect and cumulative effects, so the scope of analysis is narrower even though the types of impacts are similar.

In ADEQ's view that assumption of CWA 404 does not encompass the public interest review requirements, the second very substantial difference between not only NEPA and CWA but CWA 404 as administered by the Corps now and as it would be by ADEQ, would be the lack of analysis of any impacts other than the effects on the waters of the U.S. potentially affected by a proposed permit. This means

that the ecological, economic and other ramifications of a permit decision would go unexamined by the very agency making the decision.

In summary, should ADEQ assume responsibility for 404 and implement it according to its current policy position, there would be two highly significant changes. First, the analysis would focus solely on impacts to the affected waters. The direct, indirect and cumulative effects of a proposed action on the ecological, social, economic, health and aesthetic components of the surrounding environment, on communities and on wildlife would not be analyzed. Second, the public would have no opportunity to review and comment on the much narrower analysis of effects once it was produced. In the absence of state statutes equivalent to NEPA, such as those passed in New Jersey and Michigan; the only two states to successfully assume Section 404 authorities, the loss of these aspects of NEPA is not mitigated at the state level. **Given these considerations, it is our opinion that Section 404 authorities should not be assumed by the state; but rather should continue to be administered by the Army Corps of Engineers.**